

**Notice of Allowability**

Application No.

10/646,938

Examiner

Kamran Afshar 571-272-7796

Applicant(s)

NAKAMURA, TAKAHARU

Art Unit

2617

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/26/2007 & 1/30/2008.
2. ☒ The allowed claim(s) is/are 16 and 17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/26/2007 has been entered.

## EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Dexter T. Chang, Reg. No.: 44,071 on 1/30/2008.

The application has been amended as follows:

### **In The Claims:**

16. **(currently amended)** A mobile terminal in a mobile communication system for authenticating a communicating party when communication is performed between the mobile terminal and a device on the side of a network, comprising:

authentication processing means which, when a request signal requesting operation execution is received from a network device, is for executing authentication processing to check whether said request signal is a request signal from an authorized network device; and

operation execution means for executing an operation that is in accordance with said request signal if authentication that the network device is an authorized network device is obtained, wherein said authentication processing means includes:

an authentication necessity table that indicates whether each request received from the network device requires authentication;

means for storing an identifier and key information of a mobile terminal;

a random-number generator for generating any random number when said request signal is received from the network device;

an authentication operation unit for executing a prescribed authentication operation using said key information and random number;

an authentication request signal transmitter for creating an authentication request signal, which includes said terminal identifier and random number, and sending this signal to the network device;

a receiver for receiving an authentication result, which has been obtained by an authentication operation performed on the network side, from the network device; and

a comparator for comparing the authentication result computed by the mobile terminal and the authentication result sent from the network device and deciding that the network device is an authorized network when the compared results agree, wherein

said authentication processing means refers to said table when said request is received from the network device, and executes authentication processing if the received request is one requiring authentication, and said operation execution means executes the operation that is in accordance with said request signal if authentication that the network device is an authorized network device is obtained,

said authentication processing means foregoes authentication processing if a request is not one requiring authentication, and said operation execution means executes the operation that is in accordance with said request signal, and

said request signal is: ~~one of~~ a signal requesting that radio wave emissions be inhibited, a signal requesting that inhibition of radio wave emissions be canceled, a signal requesting that the mobile terminal make a transition to power cut-off, or to a standby operation, and a signal requesting disclosure of mobile terminal information possessed by the mobile terminal.

17. **(currently amended)** A mobile communication system for authenticating a communicating party when communication is performed between a mobile terminal and a device on the side of a network, wherein

the mobile terminal includes:

authentication processing means which, when a signal requesting execution of a prescribed operation has been received from a network device, is for sending an authentication request signal to the network device in order to determine whether said request signal is a request signal from an authorized network device; performing an authentication operation; and comparing result of this authentication operation with result of an authentication operation sent from the network device; and

operation execution means for executing an operation that is in accordance with said request signal if authentication that the network device is an authorized network device is obtained; and

said network device includes an authentication operation unit for executing an authentication operation based upon an authentication request signal received from said mobile terminal, and sending result of this authentication operation to the mobile terminal, wherein the authentication processing means of said mobile terminal includes:

an authentication necessity table that indicates whether each request received from the network device requires authentication;

means for storing an identifier and key information of a mobile terminal;

a random-number generator for generating any random number when said request signal is received from the network device;

an authentication operation unit for executing a prescribed authentication operation using said key information and random number;

an authentication request signal transmitter for creating an authentication request signal, which includes said terminal identifier and random number, and sending this signal to the network device;

a receiver for receiving result of an authentication operation obtained by an authentication operation of the network device; and

a comparator for comparing result of the authentication operation performed by the mobile terminal and the result of the authentication operation sent from the network device and deciding that the network device is an authorized network device when the compared results agree, wherein

said authentication processing means refers to said table when said request is received from the network device and executes authentication processing if the received request is one requiring authentication, and said operation execution means executes the operation that is in accordance with said request signal if authentication that the network device is an authorized network device is obtained,

said authentication processing means foregoes authentication processing if a request is not one requiring authentication, and said operation execution means executes the operation that is in accordance with said request signal, and

said request signal is: one of a signal requesting that radio wave emissions be inhibited, a signal requesting that inhibition of radio wave emissions be canceled, a signal requesting that the mobile terminal make a transition to power cut-off, or to a standby operation, and a signal requesting disclosure of mobile terminal information possessed by the mobile terminal.

### ***Allowable Subject Matter***

3. In view of the amended claims as discussed above in item 2, Claims 16-17 are allowed.

The following is an examiner's statement of reasons for allowance: 16-17.

With respect to claim 16, the prior art of record fails to disclose singly or in combination or render obvious that the authentication processing means includes: an authentication necessity table that indicates whether each request received from the network device requires authentication; means for storing an identifier and key information of a mobile terminal; a random-number generator for generating any random number when the request signal is received from the network device; an authentication operation unit for executing a prescribed authentication operation using the key

information and random number; an authentication request signal transmitter for creating an authentication request signal, which includes the terminal identifier and random number, and sending this signal to the network device; a receiver for receiving an authentication result, which has been obtained by an authentication operation performed on the network side, from the network device; and a comparator for comparing the authentication result computed by the mobile terminal and the authentication result sent from the network device and deciding that the network device is an authorized network when the compared results agree, wherein the authentication processing means refers to the table when the request is received from the network device, and executes authentication processing if the received request is one requiring authentication, and the operation execution means executes the operation that is in accordance with the request signal if authentication that the network device is an authorized network device is obtained, the authentication processing means foregoes authentication processing if a request is not one requiring authentication, and the operation execution means executes the operation that is in accordance with the request signal, and the request signal is: a signal requesting that radio wave emissions be inhibited, a signal requesting that inhibition of radio wave emissions be canceled, a signal requesting that the mobile terminal make a transition to power cut-off, to a standby operation, and a signal requesting disclosure of mobile terminal information possessed by the mobile terminal.

With respect to claim 17, the prior art of record fails to disclose singly or in combination or render obvious that the authentication processing means of the mobile terminal includes: an authentication necessity table that indicates whether each request received from the network device requires authentication; means for storing an identifier and key information of a mobile terminal; a random-number generator for generating any random number when the request signal is received from the network device; an authentication operation unit for executing a prescribed authentication operation using the key information and random number; an authentication request signal transmitter for creating an authentication request signal, which includes the terminal identifier and random number, and sending this signal to the network device; a receiver for receiving result of an authentication

operation obtained by an authentication operation of the network device; and a comparator for comparing result of the authentication operation performed by the mobile terminal and the result of the authentication operation sent from the network device and deciding that the network device is an authorized network device when the compared results agree, wherein the authentication processing means refers to the table when the request is received from the network device and executes authentication processing if the received request is one requiring authentication, and the operation execution means executes the operation that is in accordance with the request signal if authentication that the network device is an authorized network device is obtained, the authentication processing means foregoes authentication processing if a request is not one requiring authentication, and the operation execution means executes the operation that is in accordance with the request signal, and the request signal is: a signal requesting that radio wave emissions be inhibited, a signal requesting that inhibition of radio wave emissions be canceled, a signal requesting that the mobile terminal make a transition to power cut-off, to a standby operation, and a signal requesting disclosure of mobile terminal information possessed by the mobile terminal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - a) Oshima (U.S. 6,081,704 A).
  - b) Mecca (U.S. 7,215,944 B2).
  - c) Ozeki, Shinichiro (JP 07264671 A).
  - d) Steer (U.S. 6,343,213 B1).
  - e) Terasaka (U.S. Pub. No.: 2001/0053709 A1).

f) Suzuki (U.S. 5,390,252 A).

g) Mazawa (U.S. 7,039,425 B1).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Eng, George** can be reached @ (571) 272-3984. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kamran Afshar



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SUPERVISORY PATENT EXAMINER